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Serial No. 10/730,388  
Response dated August 7, 2006  
Response to Office Action dated February 6, 2006

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims**

1. (currently amended): A test system, comprising:

    a tester configured to test a set of components and generate test data for the set of components, wherein the components are fabricated in accordance with a fabrication process; and

    a diagnostic system configured to receive the test data from the tester and automatically analyze the test data to identify a characteristic of the fabrication process for the components, wherein the diagnostic system comprises a pattern recognition system configured to recognize a pattern in the test data, wherein the pattern recognition system includes a feature extractor configured to extract a feature from the test data associated with the pattern, wherein the feature extractor calculates at least one of a mass, a centroid, a geometric moment, and a moment of Hu based on the test data.

2-13. (canceled):

14. (currently amended): A test data analysis system for analyzing test data for a set of components fabricated and tested using a fabrication process, comprising:

    a memory for storing the test data; and

    a diagnostic system having access to the memory and configured to identify a characteristic of the fabrication process based on the test data, wherein the diagnostic system comprises a pattern recognition system configured to recognize a pattern in the test data, wherein the pattern recognition system includes a feature extractor configured to extract a feature from the test data associated with the pattern, wherein the feature extractor calculates at least one of a mass, a centroid, a geometric moment, and a moment of Hu based on the test data.

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15-26. (cancelled):

27. A computer-implemented method for testing components fabricated and tested according to a fabrication process, comprising:

obtaining test data for the components; and

automatically identifying a characteristic of the fabrication process based on the test data,  
wherein automatically identifying the characteristic comprises extracting a feature from  
the test data associated with the recognized pattern, wherein the feature comprises at least  
one of a mass, a centroid, a geometric moment, and a moment of Hu based on the test  
data.

28-38. (cancelled):

39. A medium storing instructions executable by a machine, wherein the instructions cause the machine to execute a method for analyzing test data comprising:

obtaining test data for the components; and

automatically identifying a characteristic of the fabrication process based on the test data,  
wherein automatically identifying the characteristic comprises extracting a feature from the test  
data associated with the recognized pattern, wherein the feature comprises at least one of a mass,  
a centroid, a geometric moment, and a moment of Hu based on the test data.

40-50. (cancelled):